FIG. 1

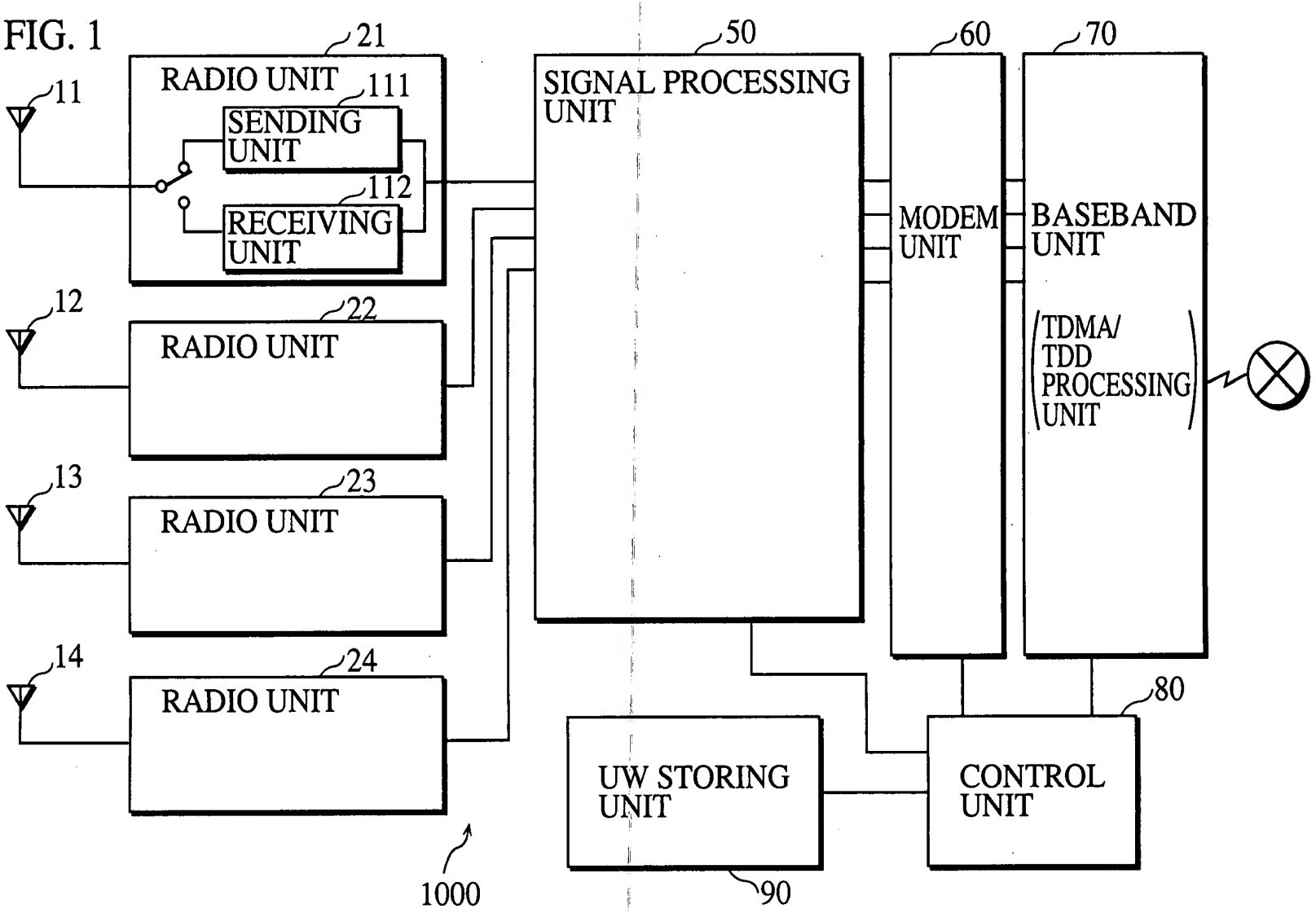
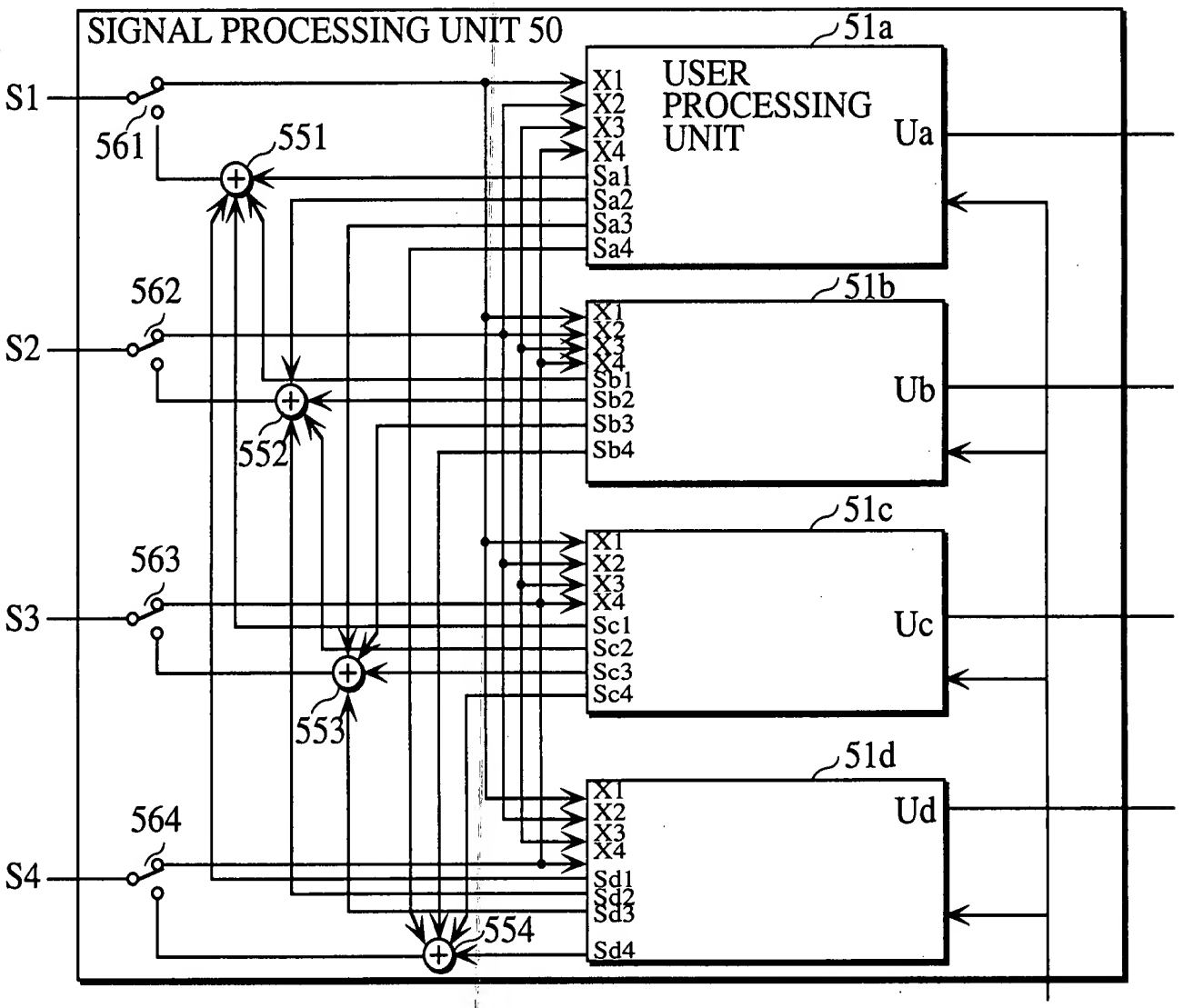

21
RADIO UNIT
111
SENDING UNIT
112
RECEIVING UNIT
11
12
22
RADIO UNIT
13
23
RADIO UNIT
14
24
RADIO UNIT
1000
50
SIGNAL PROCESSING UNIT
60
MODEM UNIT
70
BASEBAND UNIT
TDMA/ TDD PROCESSING UNIT
80
CONTROL UNIT
UW STORING UNIT
90

FIG. 2


SIGNAL PROCESSING UNIT 50
51a
USER PROCESSING UNIT
Ua
X1
X2
X3
X4
Sa1
Sa2
Sa3
Sa4
51b
Ub
Sb1
Sb2
Sb3
Sb4
51c
Uc
Sc1
Sc2
Sc3
Sc4
51d
Ud
Sd1
Sd2
Sd3
Sd4
S1
S2
S3
S4
561
562
563
564
551
552
553
554

PCT/EP2004/050200

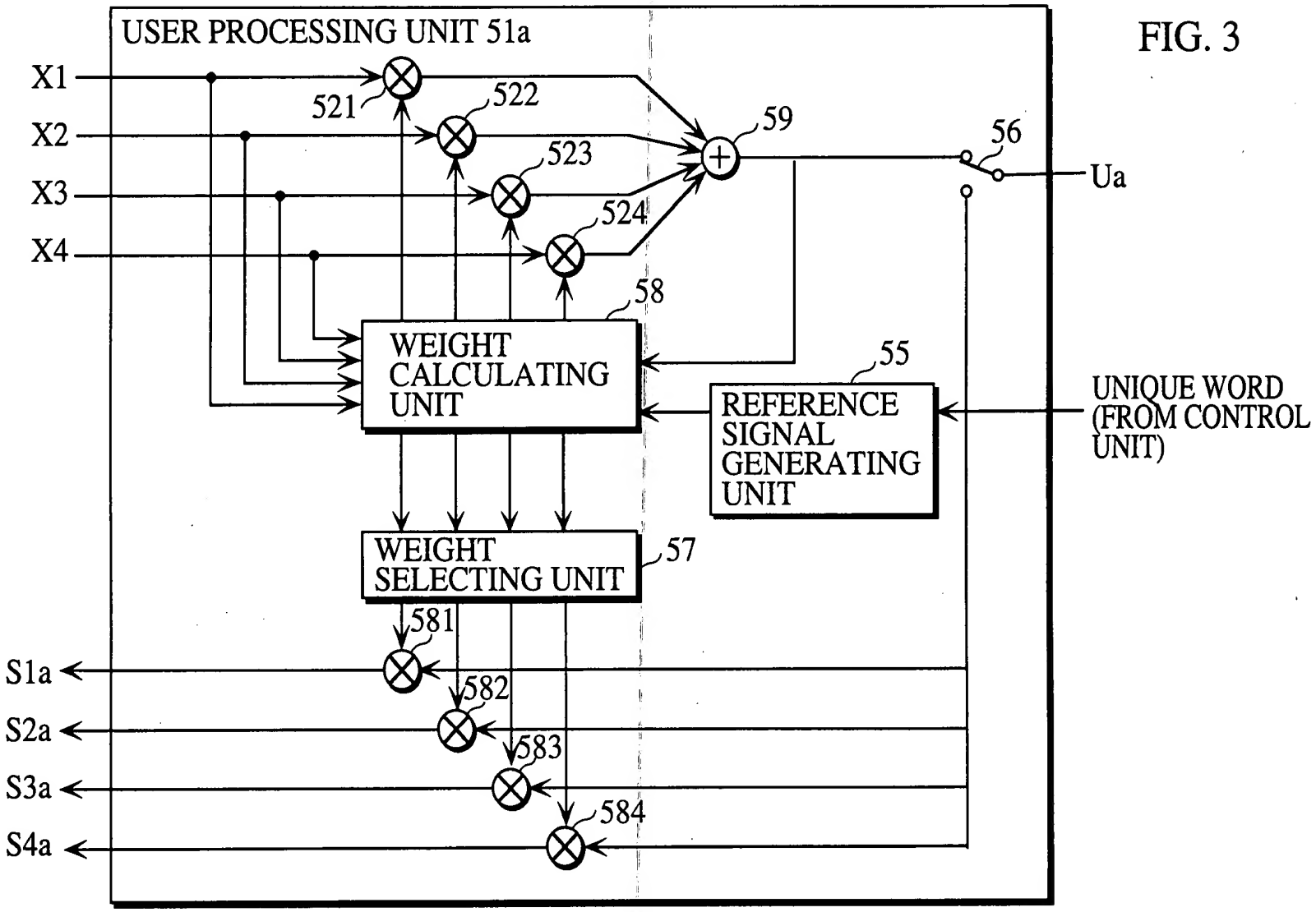


FIG. 3

FIG. 4

UNIQUE WORD	ASSIGNMENT STATE
0011110101001100	USER 1
0110100000011001	USER 2
1001011111100110	NOT ASSIGNED
1100001010110011	NOT ASSIGNED

FIG. 5

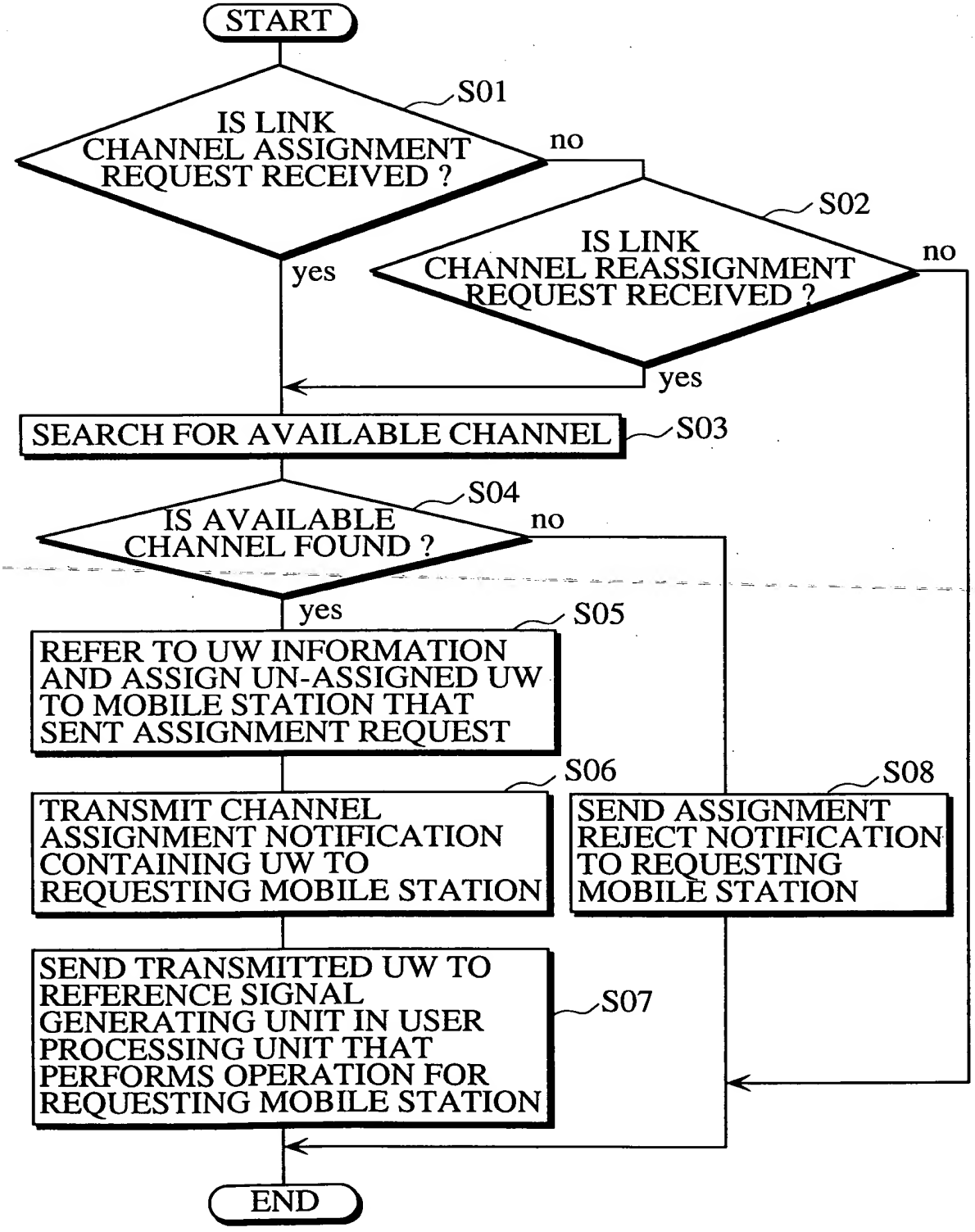

START
S01
IS LINK CHANNEL ASSIGNMENT REQUEST RECEIVED ?
no
yes
S02
IS LINK CHANNEL REASSIGNMENT REQUEST RECEIVED ?
no
yes
SEARCH FOR AVAILABLE CHANNEL
S03
S04
IS AVAILABLE CHANNEL FOUND ?
no
yes
S05
REFER TO UW INFORMATION AND ASSIGN UN-ASSIGNED UW TO MOBILE STATION THAT SENT ASSIGNMENT REQUEST
S06
TRANSMIT CHANNEL ASSIGNMENT NOTIFICATION CONTAINING UW TO REQUESTING MOBILE STATION
S08
SEND ASSIGNMENT REJECT NOTIFICATION TO REQUESTING MOBILE STATION
SEND TRANSMITTED UW TO REFERENCE SIGNAL GENERATING UNIT IN USER PROCESSING UNIT THAT PERFORMS OPERATION FOR REQUESTING MOBILE STATION
S07
END

FIG. 6

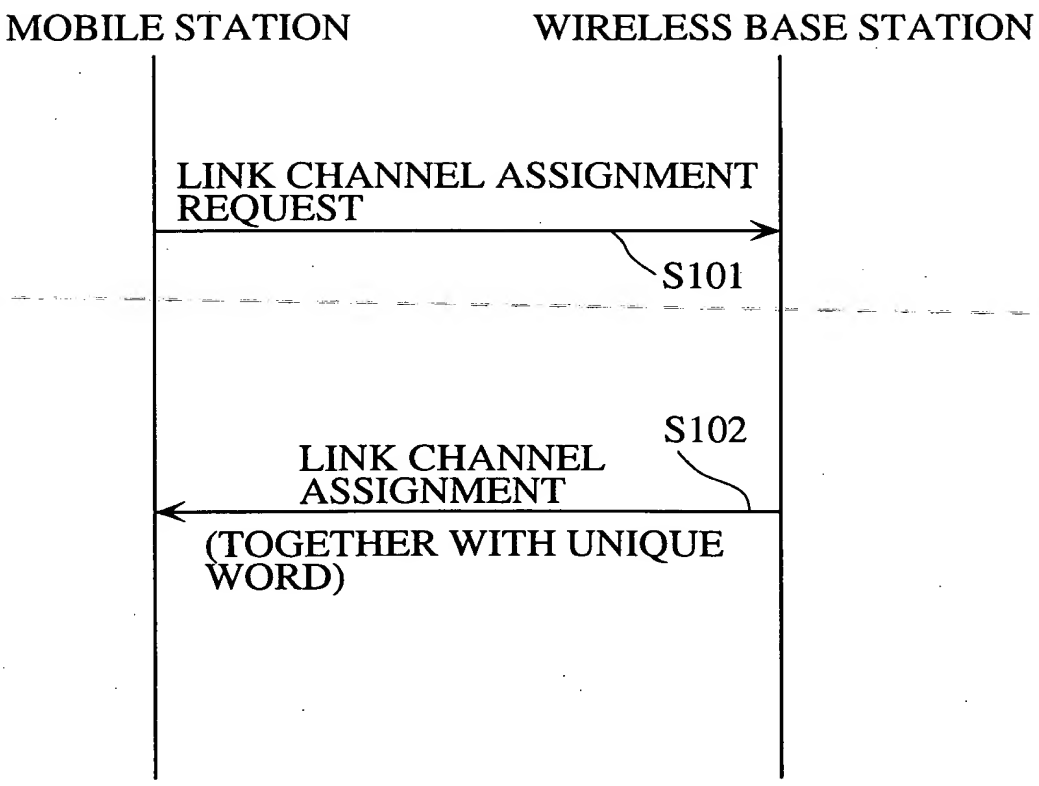

MOBILE STATION
WIRELESS BASE STATION
LINK CHANNEL ASSIGNMENT REQUEST
S101
S102
LINK CHANNEL ASSIGNMENT
(TOGETHER WITH UNIQUE WORD)

FIG. 7

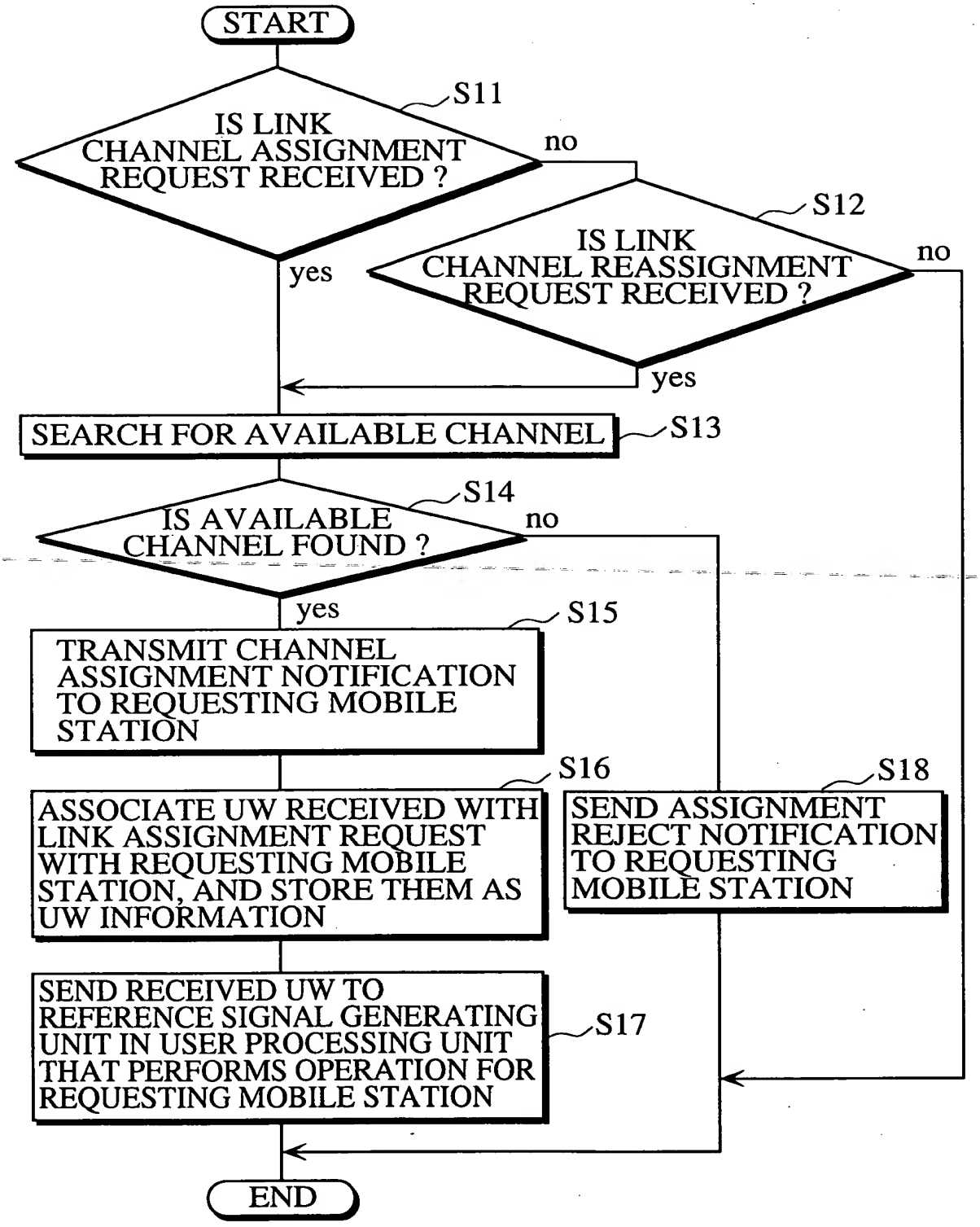

START
S11
IS LINK CHANNEL ASSIGNMENT REQUEST RECEIVED ?
no
yes
S12
IS LINK CHANNEL REASSIGNMENT REQUEST RECEIVED ?
no
yes
SEARCH FOR AVAILABLE CHANNEL
S13
S14
IS AVAILABLE CHANNEL FOUND ?
no
yes
S15
TRANSMIT CHANNEL ASSIGNMENT NOTIFICATION TO REQUESTING MOBILE STATION
S16
ASSOCIATE UW RECEIVED WITH LINK ASSIGNMENT REQUEST WITH REQUESTING MOBILE STATION, AND STORE THEM AS UW INFORMATION
S18
SEND ASSIGNMENT REJECT NOTIFICATION TO REQUESTING MOBILE STATION
SEND RECEIVED UW TO REFERENCE SIGNAL GENERATING UNIT IN USER PROCESSING UNIT THAT PERFORMS OPERATION FOR REQUESTING MOBILE STATION
S17
END

FIG. 8

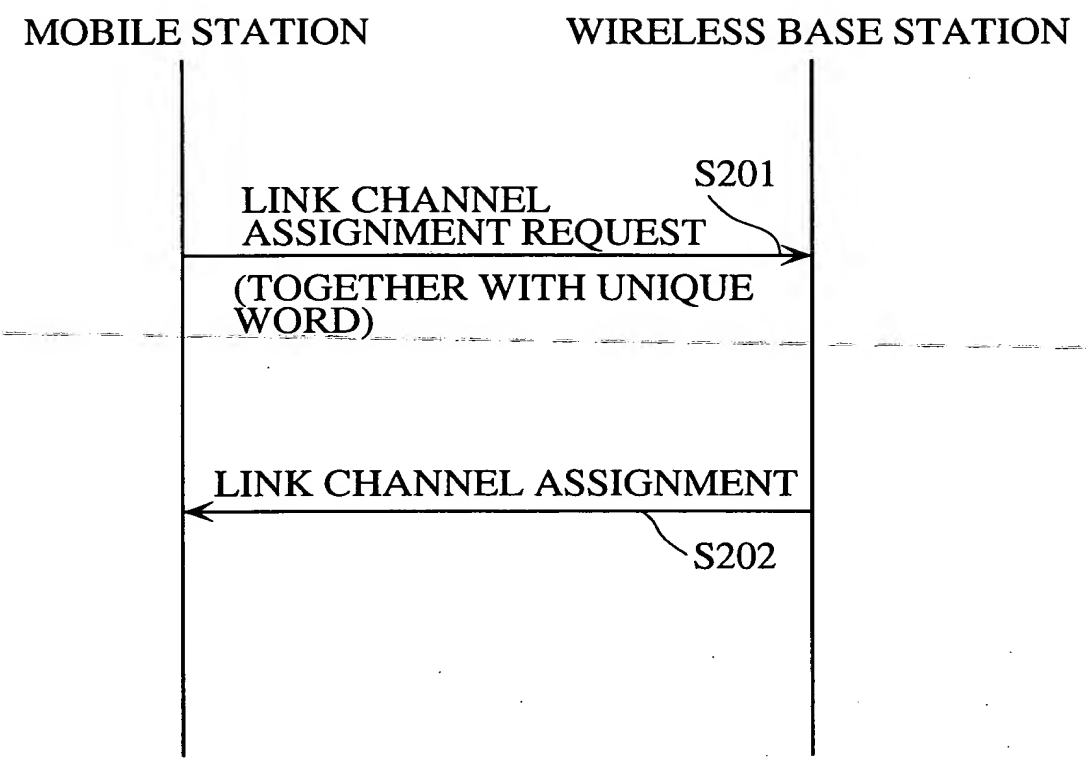
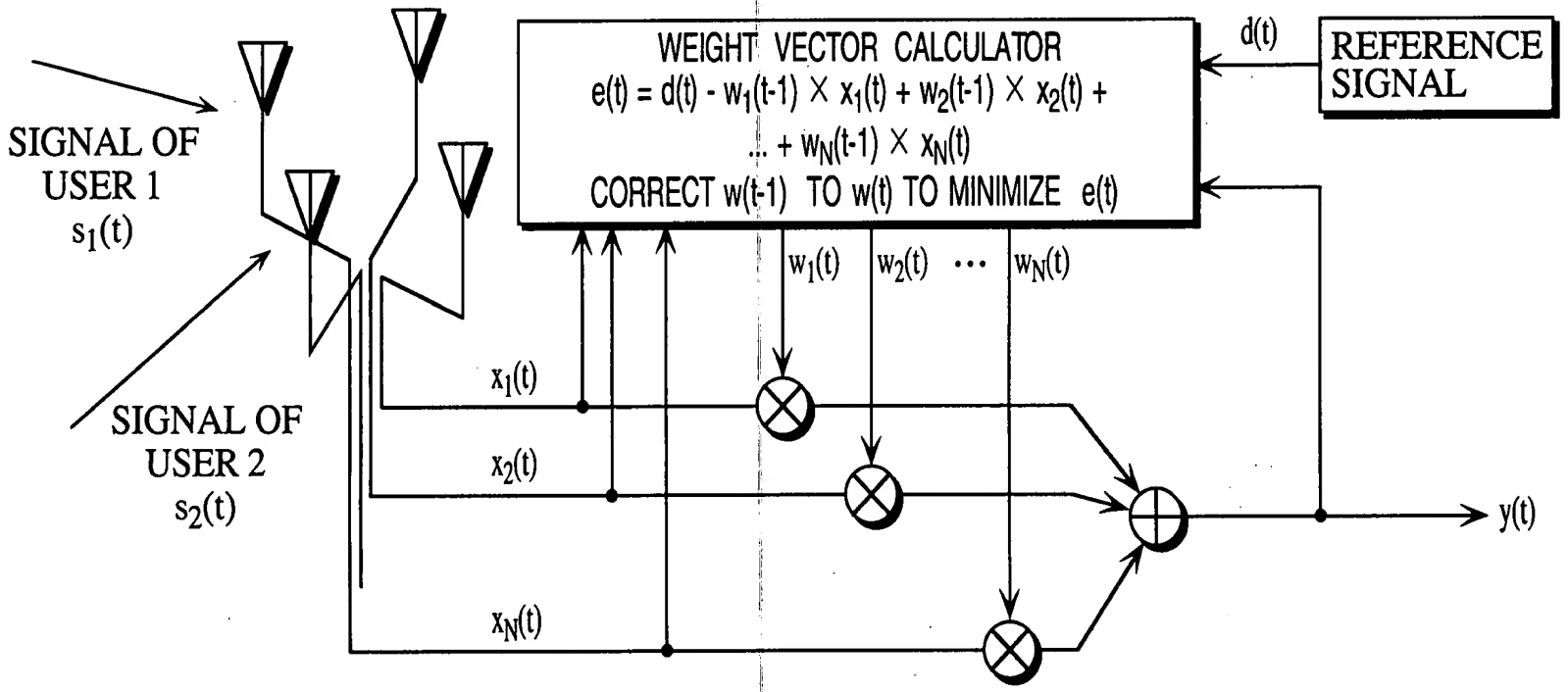

MOBILE STATION
WIRELESS BASE STATION
S201
LINK CHANNEL ASSIGNMENT REQUEST
(TOGETHER WITH UNIQUE WORD)
LINK CHANNEL ASSIGNMENT
S202

FIG. 9


WEIGHT VECTOR CALCULATOR
e(t) = d(t) - w1(t-1) X x1(t) + w2(t-1) X x2(t) +
... + wN(t-1) X xN(t)
CORRECT w(t-1) TO w(t) TO MINIMIZE e(t)
d(t)
REFERENCE SIGNAL
SIGNAL OF USER 1
s1(t)
SIGNAL OF USER 2
s2(t)
w1(t)
w2(t)
wN(t)
x1(t)
x2(t)
xN(t)
y(t)